

ENVIRONMENTAL JUSTICE PETITION FOR EPA ACTION UNDER EXECUTIVE ORDER 12898 AND ALL OTHER LEGAL AUTHORITIES

I. Introduction

People of the Appalachian Mountain region of southern West Virginia, southwest Virginia, eastern Kentucky, and eastern Tennessee, including members of Coal River Mountain Watch, Kentuckians For The Commonwealth, Ohio Valley Environmental Coalition, Southern Appalachian Mountain Stewards, Statewide Organizing for Community eMpowerment, Sierra Club's Environmental Justice and Community Partnerships Program, and the Appalachian Center for the Economy and the Environment submit this complaint of environmental justice violations and disproportionately high pollution burdens suffered due to mountaintop removal coal mining and associated waste disposal in our waters. We hereby petition for action by the United States Environmental Protection Agency ("EPA"). EPA has the responsibility under Executive Order 12898 to address the environmental justice tragedy of mountaintop removal mining in Appalachia, and has the authority under the Clean Water Act, the Clean Air Act, the National Environmental Policy Act, and other laws to do so.

We urge EPA to address its responsibility to protect the low income communities of Appalachia and to use its authorities now because, after decades of economic exploitation by out-of-state corporate interests, our communities remain low-income with high poverty levels and are rapidly losing natural resources – our waterways and our forested mountains – that are essential to our health, welfare, and culture, our ability to end poverty and build economic potential for safe, family-sustaining jobs, and our ability to continue living in the homes and towns that have belonged to our families for generations.

We come from a region that is historically and predominantly low-income and that has been targeted for disproportionately high and harmful effects on our environment and human health from coal mining. While the economic profit from mining activities has gone to the hands of a few, mainly out-of-state coal conglomerates or temporary residents, jobs available for residents of our communities have rapidly declined along with our community welfare. During the last three decades, the central Appalachian

region has been targeted for the rise of an especially damaging form of surface mining, known in our region as mountaintop removal mining. This targeting of our communities for the short-term exploitation of coal has created permanent, long-term damage to our welfare, community health, natural resources, and culture. The rise of this destructive practice has stifled the potential for positive economic growth and eliminated any incentive for the establishment of industries in our communities that would provide lasting, safe, healthy, and good-paying jobs. The dependence of this region on coal mining, and particularly on mountaintop removal and other forms of strip mining, has not proved a boon. The region needs environmental protection and economic diversification in order to achieve a healthier, more stable economy.

Local, state, and federal officials have neither listened to nor addressed our concerns. In instance after instance, they have failed to provide effective public notice of key information regarding new mountaintop removal permits. They have failed to provide complete environmental impact assessments so that our communities and officials can understand the full individual and cumulative impact of permit actions. And, most importantly, they have failed to provide any meaningful protection for community residents' health and safety, or for the survival of our geographical treasures, including our mountains and headwater streams, the watersheds that form from these streams and provide our communities' drinking water, and the fish that live in these waters and provide us with food and recreation. The loss of these geographical treasures also threatens our ability to develop new economic opportunities and economic tourism based on healthy, safe mountains and waterways. In stark contrast, local, state and federal officials have repeatedly facilitated the rapid increase of destructive mountaintop removal mining coal mining operations in central Appalachia.

Due to its vital charge under Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," EPA must take immediate steps to recognize and address the environmental justice effects of mountaintop removal mining, a destructive practice that is occurring at such a high and destructive rate *only in our disadvantaged communities*. The disproportionate environmental destruction from mountaintop removal clearly implicates the Executive Order.

EPA's responsibility to address the effects of mountaintop removal mining must begin with its primary role to administer and enforce the Clean Water Act, as the terrible harm caused by mountaintop removal mining is linked closely to the way that EPA and the U.S. Army Corps of Engineers have failed to lawfully apply or to enforce section 404, 33 U.S.C. § 1344. EPA has failed to administer or enforce its own vital Section 404(b)(1) Guidelines, to hold the Corps' to its own Clean Water Act section 404 regulations, or to ensure the proper application of NEPA and the CEQ regulations, all of which were designed to protect our public interests. EPA also has a duty under section 309 of the Clean Air Act to review environmental impact assessments of other agencies in the NEPA process. Other agencies have been complicit in or have failed to enforce related federal law in our communities as well, including the Department of Interior's Office of Surface Mining (which has allowed or approved exemptions from the stream buffer zone requirements of SMCRA) and its Fish and Wildlife Service (which has failed to take action on individual permits for which the Service filed comments recognizing harm both to our native species and to our watersheds), the Council for Environmental Quality (which has failed to enforce the application of its regulations to require environmental impact statements for mountaintop removal mines).

EPA should embrace this critical opportunity to meet its obligation to incorporate environmental justice considerations into each and every aspect of its decision-making that affects Appalachian coalfield communities, including its responsibilities under the Clean Water Act and the Clean Air Act, and to encourage other agencies to consider these impacts in their own decisions. In particular, this petition requests that EPA take the following actions:

1. Identify the Appalachian Mountain region of southern West Virginia, southwest Virginia, eastern Kentucky, and eastern Tennessee as an environmental justice area of concern due to the vulnerability of these communities, the substantial harm already caused by mountaintop removal mining, and the serious ongoing risks of permanent and cumulative harm, pursuant to § 1-101 of E.O. 12898;
2. Create an environmental justice plan and strategy for this region that will assess and prevent further disproportionate environmental and health effects from mountaintop removal mining, pursuant to § 1-103 of E.O. 12898;

3. Incorporate environmental justice considerations into its current review of applications for Clean Water Act permits for mountaintop removal coal mining, pursuant to section 404 of the Clean Water Act, 33 U.S.C. § 1344, in particular the Corps' proposed issuance of permits under section 404(a)-(b), and EPA's authority under Clean Water Act section 404(c) to veto those permits that would violate the Act, as required by EPA's duty under § 1-103(a)(1) of E.O. 12898 to enforce all health and environmental statutes in areas with low-income populations;

4. Incorporate environmental justice considerations into its review of environmental impact assessments performed by all other agencies related to MTR mining pursuant to section 309 of the Clean Air Act, 42 U.S.C. § 7609, including but not limited to assessments (or the lack thereof) related to actions taken by the Corps and OSM, as required by § 1-103(a)(1) of E.O. 12898;

5. Ensure a meaningful opportunity for public participation by the Appalachian coalfield communities in each individual permit review and in EPA's overall permit review process, pursuant to § 5-5 of E.O. 12898 and pursuant to applicable public participation and notice requirements of the Clean Water Act, such as section 404(a), 33 U.S.C. § 1344(a), and section 101(e), 33 U.S.C. § 1251(e), and accompanying regulations;

6. Perform human health and environmental research and analysis on the environmental and health risks born by the residents of Appalachian coalfields, pursuant to § 3-302 of E.O. 12898, and perform research, collect, maintain, and publish an analysis of information on the income level for areas surrounding the mountaintop removal mines of the Appalachian region because those operations have had and are expected to continue to have "substantial environmental, human health, or economic effect on the surrounding populations," pursuant to § 3-302(b) of E.O. 12898;

7. Identify differential patterns of consumption of natural resources among the citizens of Appalachia, and to assess the ways mountaintop removal mining impacts these patterns of consumption, including through the bio-accumulation of toxic elements in fish and animal tissue, pursuant to § 4-402 of E.O. 12898.

The right of people to petition the federal government for redress of grievances is contained in the First Amendment to the U.S. Constitution.¹ It is also enshrined in federal statute, in the Administrative Procedure Act.² Therefore, we submit this petition to the EPA and call on the agency to take these specific actions and others that are deemed necessary to end the disproportionate environmental effects of mountaintop removal mining on the people of the Appalachia region as required by the Executive Order on Environmental Justice.

II. The Executive Order on Environmental Justice

Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” directs every Federal agency, “[t]o the greatest extent practicable and permitted by law” to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and possessions.”³

Our Appalachian region, where mountaintop removal coal mining activities are uniquely centered, experiences high levels of unemployment, low regional incomes, and educational deficits that continue to contribute to a lower standard of living than enjoyed in many areas of the U.S. The Appalachian region, therefore, is a low-income population as contemplated by Executive Order 12898.

Executive Order 12898 directs federal agencies to “implement this order consistent with, and to the extent permitted by, existing law”⁴ and specifies that “[t]he head of each Federal agency shall be responsible for ensuring compliance with this order. Each Federal agency shall conduct internal reviews and take such other steps as may be

¹ U.S. Const., amend. I. (“Congress shall make no law ... abridging ... the right of the people ... to petition Government for a redress of grievances.”). United Mine Workers of Am., Dist. 12 v. Illinois State Bar Ass'n, 389 U.S. 217, 222 (1967) (the right to petition for redress of grievances is among the most precious of the liberties safeguarded by the Bill of Rights).

² 5 USC 553(e) (2005) (“Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.”)

³ Executive Order 12898, Section 1-101 (February 1994).

⁴ Executive Order 12898, Section 6-608.

necessary to monitor compliance with this order.”⁵ The Executive Order also specifically solicits input and guidance from the public, stating that “[t]he public may submit recommendations to Federal agencies relating to the incorporation of environmental justice principles into Federal agency programs or policies. Each Federal agency shall convey such recommendations to the [Interagency Working Group on Environmental Justice].”⁶

In order to comply with Executive Order 12898, Federal agencies – including EPA – must identify and address the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on the citizens of the Appalachian region. No federal programs, policies, or activities have a higher or more adverse impact on human health and the environment in Appalachia than the processing and approval of Clean Water Act section 404 permits for mountaintop removal coal mining.

III. Summary of Grounds and Evidence

A. Appalachia is a low-income region entitled to the protections and enhanced procedures called for under Executive Order 12898.

The Appalachian Region, as defined by the Appalachian Regional Commission (ARC), is composed of 420 counties spread across thirteen states.⁷ Eighty-one of the 420 counties in Appalachia are listed by the ARC as “distressed,” the lowest economic ranking and an indication that those counties are among the worst ten percent of all counties in the United States economically.⁸ Another eighty-one Appalachian counties are listed by the ARC as “at-risk,” which places them between the lowest ten and twenty-fifth percent of all U.S. counties economically.⁹ The majority of these distressed and at-risk counties are located in central Appalachia, where the majority of coal mining in the

⁵ Executive Order 12898, Section 6-601.

⁶ Executive Order 12898, Section 5-5(a).

⁷ See <http://www.arc.gov/index.do?nodeId=2>.

⁸ See http://www.arc.gov/images/maps/cty_econ09.html.

⁹ *Id.*

region occurs.¹⁰ At the time of the 1990 census, the poverty rate in central Appalachia was 27 percent.¹¹

Several factors contribute to the poor economic situation in Appalachia. The ARC noted some of these factors in a recent report on disparities in health status and access to health care in Appalachia, writing that “[i]n general, the Appalachian region has lagged economically from other parts of the U.S. Relatively high levels of unemployment, low regional incomes, and educational deficits continue to contribute to a lower standard of living than enjoyed in many areas of the U.S.”¹² These underlying causes of poverty, including educational deficits, persist in Appalachia. The percentage of adults aged 18-24 in central Appalachia with high school degrees is 68 percent.¹³

The parts of central Appalachia with the highest poverty and lowest education rates are generally recognized to be the areas where the most coal mining occurs. A recent study on mortality rates in Appalachian coal mining counties noted that “Appalachia has long been characterized by social inequalities and health disparities. . . . Compared to other parts of Appalachia, coal mining areas are also characterized by poor socioeconomic conditions including higher levels of poverty and lower education rates.”¹⁴ Similarly, a recent study on the economics of coal in Kentucky found that “Kentucky’s coal-producing counties are among the poorest in the United States.”¹⁵ This report further noted that “[t]he poverty rate in Appalachian Kentucky was nearly double that of the nation in 2000.”¹⁶

The coal industry frequently claims that coal mining has a positive impact on the economy of the Appalachian region, primarily through the creation of jobs and the generation of tax revenue. Recent studies, however, have found that coal mining has an

¹⁰ See Appalachian Regional Commission, County Economic Status in Appalachia, FY 2009. See Appendix A. (The complete appendices to this petition can be found at: www.sierraclub.org/ej/programs/ap.aspx.)

¹¹ See <http://www.arc.gov/index.do?nodeId=26>.

¹² Halverson, J.A., L. Ma, E.J. Harner, An Analysis of Disparities in Health Status and Access to Health Care in the Appalachian Region, report prepared for the Appalachian Regional Commission, Sept. 2004. at xiv. See Appendix B.

¹³ <http://www.arc.gov/index.do?nodeId=26>

¹⁴ Hendryx, M., Mortality Rates in Appalachian Coal Mining Counties: 24 Years Behind the Nation, Environmental Justice, Vol. 1, Num. 1, 2008, pp. 5-11 at 5. See Appendix C.

¹⁵ Mountain Association for Community Economic Development report, The Economics of Coal in Kentucky: Current Impacts and Future Prospects, June 2009, at p. 1. See Appendix D.

¹⁶ Id. at 5.

overall negative impact on state and local economies. A study on the impact of coal on the Kentucky state budget concluded that “the industry actually costs more than it brings to the state.”¹⁷ The report found that:

While coal generates significant revenues, its costs are considerable. Major public expenditures go into maintaining the coal haul road system; operating the health, safety and environmental protection systems necessary for coal; supporting training and research and development for the industry; and providing various tax breaks and subsidies. Without including harder-to-quantify costs of negative externalities from the industry, the net cost to the state is over \$100 million annually.¹⁸

The externalized costs recognized, but not directly considered, by the study include:

healthcare, lost productivity resulting from injury and health impacts, water treatment from siltation caused by surface mining, water infrastructure to replace damaged wells, limited development potential due to poor air quality, and social spending associated with declines in coal employment and related economic hardships of coalfield communities.¹⁹

Another study on the economic impacts of mountaintop removal mining in Central Appalachia also recognized that “[t]he practice of mountaintop/ valley fill mining has economic costs to society, such as increased mortality and morbidity of miners and surrounding communities, reduced property values associated with mining activities, and extensive damage to natural resources.”²⁰ A statistical analysis of the value of lives lost due to the elevated mortality rates experienced in Appalachian coal mining areas concluded that coal mining costs the region over 50 billion dollars in the value of statistical life lost.²¹

Other commentators have noted the bitter irony that an area renowned for its natural resources continues to be so poor, observing that “[a]fter a century of mining in the ‘billion dollar coalfields,’ local communities lack funds to upgrade aging schools; tens of thousands live below the federal ‘poverty line’; and public services such as fire,

¹⁷ Konty, M.F., and J. Bailey, *The Impact of Coal on the Kentucky State Budget*, report prepared for the Mountain Association for Community Economic Development, June 2009, at p. 2. See Appendix E.

¹⁸ *Id.* at 7.

¹⁹ *Id.* at 2.

²⁰ Napoleon, A. and D. Schlissel, *Economic Impacts of Restricting Mountaintop/Valley Fill Coal Mining in Central Appalachia*, report by Synapse Energy Economics, Inc., August 2009, at 20. See Appendix F.

²¹ Hendryx, M. and M. Ahern, *Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost*, *Public Health Reports*, vol. 124, Jul-Aug 2009, pp. 541-550 at 541, 546. See Appendix G.

police, sewage treatment, and libraries struggle to survive on 'bare-bones' budgets."²² This is because "[w]hile billions of dollars of coal have been extracted from [the region's] mountains, the coal industry's power has enabled it to funnel much of the wealth generated by mining to out-of-state interests, leaving little for the people whose labors produced that wealth."²³ Indeed, coal companies exploit the fact that the communities already so heavily impacted by mining have few resources with which to combat the most destructive mining practices. As one commentator has described, "the corporate expectation, or at least the hope, is that communities will suffer in silence the infringements of private property rights that would never be tolerated in the upscale suburbs where most politicians, regulators, and coal company managers live."²⁴ Rather than represent the best economic hope for the region, the coal mining industry instead continues to serve as a stone around the region's neck.

Fortunately, recent studies suggest that restricting or ending mountaintop removal mining will not undermine the economy of Central Appalachia. In the short term, deep mining will continue to be a source of employment in the region and may expand, to the extent that Central Appalachian deep mined coal remains competitive (given its lower transportation costs and higher quality). Indeed, a shift to deep mining has the potential to bring an increase in employment, because, per ton of production, deep mining employs more miners than surface mining.²⁵

In the longer term, "[e]conomic diversification, fostered by regional and national policy, can alleviate the boom-bust cycles associated with heavy dependence on employment in extractive industries and help prepare the region for the reality of a carbon constrained economy."²⁶

B. The citizens of Appalachia suffer disproportionately high and adverse health and environmental impacts.

²² McGinley, P.C., From Pick and Shovel to Mountaintop Removal: Environmental Injustice in the Appalachian Coalfields, *Environmental Law*, 34 *Envtl. L.* 21, 23-24 (2004).

²³ *Id.* at 79.

²⁴ *Id.* at 77.

²⁵ Napoleon, A. and D. Schlissel, *Economic Impacts of Restricting Mountaintop/Valley Fill Coal Mining in Central Appalachia*, report by Synapse Energy Economics, Inc., August 2009, at 20. See Appendix F.

²⁶ *Id.* at 23.

The Appalachian region, in general, experiences greater adverse health impacts than other parts of the United States. A recent ARC report concluded that “the Appalachian Region as a whole suffers considerable excess in mortality from leading causes of death when compared to the non-Appalachian U.S. Among the causes of death examined in this study, Appalachian populations suffer the most significant excesses in heart disease mortality, the leading cause of death in the U.S. In addition, the Appalachian region suffers an excess in premature deaths (among persons 35 to 64) from heart disease, all cancers combined, lung cancer, colorectal cancer, chronic obstructive pulmonary disease, diabetes, and motor vehicle accidents, relative to comparable non-Appalachian U.S. populations.”²⁷ Indeed, “Appalachia has higher morbidity and mortality compared to the nation.”²⁸

Within Appalachia, the most significant adverse health impacts are experienced in the central portion of the region. The ARC report on disparities in health status and access to health care concluded that “[t]here is a discernable pattern of large clusters of high death rate counties in Central Appalachia.”²⁹

C. Mountaintop removal mining is a major source of human health and environmental impacts in Appalachia.

1. Health disparities in Appalachia are directly related to proximity to coal mining.

Although the negative health impacts experienced in Appalachia as a whole may partially be explained by behavioral, cultural, and economic factors, recent studies suggest that poor health within this region is associated with coal mining. “Results show that higher mortality in Appalachia is due to poverty, smoking, poor education, and race-related effects. . . . Coal mining areas, however, show elevated age-adjusted mortality both before and after adjustment for covariates. . . . Age adjusted mortality rates for

²⁷ Halverson, J.A., L. Ma, E.J. Harner, An Analysis of Disparities in Health Status and Access to Health Care in the Appalachian Region, report prepared for the Appalachian Regional Commission, Sept. 2004, at p. xxi. See Appendix B.

²⁸ Hendryx, M., Mortality Rates in Appalachian Coal Mining Counties: 24 Years Behind the Nation, Environmental Justice, Vol. 1, Num. 1, 2008, pp. 5-11 at 5. See Appendix C.

²⁹ Halverson, J.A., L. Ma, E.J. Harner, An Analysis of Disparities in Health Status and Access to Health Care in the Appalachian Region, report prepared for the Appalachian Regional Commission, Sept. 2004, at p. xxi. See Appendix B.

Appalachian coal mining areas lag about 24 years behind nation rates outside Appalachia.”³⁰ “After adjustment for all covariates, Appalachian coal mining areas were characterized by 1,607 excess annual deaths over the period 1999-2004. Adjusted mortality rates increase with increasing coal production from 1 to 7 million tons.”³¹ Indeed, “[c]ounties in Appalachia where coal mining is heaviest had significantly higher age-adjusted mortality compared to other Appalachian counties and to other areas of the country.”³² Another study found that “hospitalizations for [chronic obstructive pulmonary disease] and hypertension are significantly elevated as a function of Appalachian coal production at the county level. The risk increases significantly as the volume of coal mining rises.”³³

It is important to note that these health disparities experienced in coal mining counties appear to derive not from the dangers of coal mining, but from environmental factors that affect all members of the population. One study on health impacts in Appalachian coal mining communities found that “[e]levated adjusted mortality occurred in both males and females, suggesting that the effects were not due to occupational exposure, as almost all coal miners are men.”³⁴ The report concluded that “[t]hese illnesses are consistent with a hypothesis of exposure to water and air pollution from mining activities.”³⁵

2. Mountaintop removal mining is a major source of water pollution in Appalachia.

Mountaintop removal mining is a major contributor to water pollution in Appalachia, including the discharge of toxic heavy metals into streams and other waters. In general, strip mining – including mountaintop removal mining – contributes to water pollution by “strip[ping] away forest vegetation, causing erosion and attendant stream sedimentation and siltation, accompanied by negative impacts on aquatic life and

³⁰ Hendryx, M., *Mortality Rates in Appalachian Coal Mining Counties: 24 Years Behind the Nation*, Environmental Justice, Vol. 1, Num. 1, 2008, pp. 5-11 at 8. See Appendix C.

³¹ Id. at 5.

³² Id.

³³ Hendryx, M., M. Ahern, and T. Nurkiewicz, *Hospitalization Patterns Associated with Appalachian Coal Mining*, Journal of Toxicology and Environmental Health, 2007, 70: 2064-2070 at 2068. See Appendix H.

³⁴ Hendryx, M. and M. Ahern, *Mortality in Appalachian Coal Mining Regions: The Value of Statistical Life Lost*, Public Health Reports, vol. 124, Jul-Aug 2009, pp. 541-550 at 547. See Appendix G.

³⁵ Id.

drinking water supplies.”³⁶ Mountaintop removal mining creates additional impacts on water bodies through the use of valley fills that bury streams, including headwater streams. The U.S. Fish and Wildlife Service, in comments on the Hollow Mountain Resources project in West Virginia, described potential surface water impacts from valley fills associated with mountaintop removal mining operations (MTM/VF):

Typically, valley fills create a water quality challenge by introducing subsurface contaminants to stream surface water. Possible contaminants include Aluminum, Copper, Iron, Mercury, pH, Selenium, etc, all of which are considered toxic to aquatic and terrestrial organisms at certain levels. These toxins have the ability to travel downstream, creating a contaminated water system for many downstream water users.³⁷

The Programmatic Environmental Impact Statement (PEIS) on mountaintop mining prepared by the U.S. Army Corps of Engineers (COE), the U.S. Environmental Protection Agency (EPA), the U.S. Department of Interior’s Office of Surface Mining (OSM) and Fish and Wildlife Service (FWS), and the West Virginia Department of Environmental Protection (WVDEP), states that valley fills have the following adverse effects on downstream waters:

MTM/VF has the potential to alter the chemistry, water temperature, flow regime and geomorphological features downstream. Stream chemistry showed increased mineralization and a shift in macroinvertebrate assemblages from pollution-intolerant to pollution-tolerant species. Water temperatures from valley fill sites exhibited lower daily fluctuations and less seasonal variation than water temperatures from reference sites. . . .

The EPA Water Chemistry Report found elevated concentrations of sulfate, total and dissolved solids, conductivity, selenium and several other analytes in stream water at sampling stations below mined/filled sites.³⁸

A study of the impacts of mountaintop mining valley fills on aquatic ecosystems conducted by independent scientists from the University of Maryland and Duke University found that:

³⁶ McGinley, P.C., From Pick and Shovel to Mountaintop Removal: Environmental Injustice in the Appalachian Coalfields, *Environmental Law*, 34 *Envtl. L.* 21, 48 (2004).

³⁷ U.S. Fish and Wildlife Service, Comments on Hollow Mountain Resources project. See Appendix I.

³⁸ Programmatic Environmental Impact Statement, p. IV.B-4.

Pollutants added to ephemeral and intermittent stream channels [via mountaintop mining and valley fills] will be transported downstream to larger rivers. . . . The streams and rivers below valley fills receive alkaline mine drainage that include highly elevated concentrations of sulfate, bicarbonate, calcium and magnesium ions and which often include elevated concentrations of multiple trace metals. The combined toxicity of multiple constituents results in significant increases in conductivity and total suspended solids below valley fills. This decline in water quality leads to a loss of sensitive aquatic organisms even when downstream habitats are intact. The resulting high conductivity and high sulfates can persist long after mining activities cease and scientists have found no empirical evidence documenting recovery of macroinvertebrate communities in the streams impacted by alkaline mine drainage. The water quality impacts of MTMVF activities are more severe and more persistent than other land use changes within the southern Appalachians.³⁹

Mountaintop removal mining valley fills also have the potential to discharge dangerous levels of toxic heavy metals such as selenium. A recent report from a researcher at Wake Forest University found that:

Selenium is a naturally occurring chemical element in coal that can be released during the mining process and find its way into nearby aquatic habitats. Selenium in raw coal and overburden is leached out when these materials are exposed to air and water, and the leachate can pose a significant environmental hazard (Lemly 1985a). Mountaintop removal mining tends to maximize hazard because selenium-laden waste rock is disposed as valley fill, which places this selenium source in close proximity to streams and other surface waters. Once in the aquatic environment, waterborne selenium can enter the food chain and reach levels that are toxic to fish and wildlife (Figure 1). Impacts may be rapid and severe, eliminating entire communities of fish and causing reproductive failure in aquatic birds (Lemly 1985b, Ohlendorf 1989). Few environmental contaminants have the potential to detrimentally impact aquatic resources on such a broad scale, and even fewer exhibit the complex aquatic cycling pathways and range of toxic effects that are characteristic of selenium. This places added importance on identifying potential selenium sources and taking steps to effectively control discharges before aquatic habitats become contaminated. In recent years there has been an escalation in selenium pollution episodes associated with coal mining in North America and elsewhere (Lemly 2004), which has resulted in major environmental damage (Lemly 2008). However, because of the sheer volume of seleniferous material exposed, in combination with

³⁹ Palmer, M. and E. Bernhardt, *Mountaintop Mining Valley Fills and Aquatic Ecosystems: A Scientific Primer on Impacts and Mitigation Approaches*, 2009, at 3. See Appendix J.

the practice of valley-fill waste disposal, mountaintop removal mining is most dangerous from an environmental risk perspective.⁴⁰

Mountaintop removal mining in Appalachia therefore directly contributes to the degradation of streams and other water bodies. The impacts of mountaintop removal mining are far reaching, and extend well beyond the boundaries of the mines.

3. Mountaintop removal mining permanently destroys ancient forests that are central to the culture of Appalachian communities.

According to the PEIS, from 1992 through 2002, mountaintop removal mining and associated valley fills in Appalachian have destroyed 380,547 acres of forest (an area almost ten times larger than the District of Columbia).⁴¹ If current trends continue, that amount will double by 2012. The forests destroyed by mountaintop removal mining are some of the most ancient and diverse forests in the world. As the PEIS describes:

The mixed mesophytic forest of the Appalachian coal fields supports one of the richest floral, breeding bird, mammal, and amphibian communities of any upland eastern U.S. forest type (Hinkle et al., 1989; cited in McComb et al., 1991); it has also been described as "the most biologically diverse ecosystem in the southeastern United States" (Hinkle et al., 1993).⁴²

The destruction of this forest ecosystem by mountaintop removal mining is profound and permanent. The PEIS found that:

MTM/VF operations generally impact large areas of the forest community as the development of an individual mine can result in disturbance or removal of a few hundred to a few thousand acres of forest cover. The quality of the forest and the associated habitat impacted by a mine can vary depending on a number of factors such as extent of previous mining, past logging activities, other mineral extraction activities such as oil and gas, previous land management practices, etc. Regardless of the type or quality of forest cover that existed prior to mining, certain impacts can be generalized in association with any mine or any activity that disturbs large areas of forest. For example, unlike traditional logging activities associated with management of a hardwood forest, when mining occurs,

⁴⁰ Lemly, A., Aquatic Hazard of Selenium Pollution from Mountaintop Removal Coal Mining, 2009 at 2. See Appendix K.

⁴¹ PEIS, p. IV.C.1.

⁴² PEIS, p. III.F.2.

the tree, stump, root, and growth medium supporting the forest are disrupted and removed in their entirety.

The likelihood of natural regeneration within the mine site is contingent upon the reclamation practice and post-mining land use chosen. Given that MTM/VF occurs along the ridge tops, reclaimed mines, when the post-mining land use is a category other than forest, typically create large expanses of open area devoid of seed source trees. Seed source trees in adjacent unmined areas are typically at an elevation below the reclaimed ridge top, limiting natural succession of forest cover from adjacent areas [Appendix E (Handel, 2002)]. In this type of ridge line mining and reclamation environment, for a number of years to come, the forest is replaced by a grassland and/or herbaceous/shrub vegetative community with different topographic and hydrologic conditions than those that existed prior to mining.⁴³

This forest destruction has especially strong impacts on Appalachian communities because the mountain culture of this region is closely connected to the ancient, mixed deciduous hardwood forest and the species found only within that ecosystem. As the PEIS noted, "The rugged terrain, the vast mixed hardwood forests, the narrow river valleys and the extensive coalfields have profoundly shaped the culture, economy, and quality of life of the region's residents. The land provides the livelihood, and forms the basis for a way of life for much of the population."⁴⁴ The cumulative loss of forested land resulting from mountaintop removal mining has had, and continuous to have, a profound impact on traditional mountain culture in Appalachia.

4. Mountaintop removal mining disrupts communities.

In addition, mountaintop removal mining generates large amounts of noise, blasting impacts, and community disruption.

Loud noise and dust from blasting and earth-moving activities disturb nearby communities and wildlife. During mining, dust and debris often fill the air as soil and underlying rock strata are blasted apart, earth is moved, and coal extracted. Landslides caused by indiscriminate dumping of mine spoil downslope on steep Appalachian mountainsides [has] buried cars, homes, and sometimes killed people.⁴⁵

⁴³ PEIS, p. IV.C.1.

⁴⁴ PEIS, p. III.T.

⁴⁵ McGinley, P.C., From Pick and Shovel to Mountaintop Removal: Environmental Injustice in the Appalachian Coalfields, *Environmental Law*, 34 *Envl. L.* 21, 49 (2004).

The PEIS recognizes the disturbance that blasting and other aspects of mountaintop removal mining can cause for neighboring communities:

[W]hen mountaintop mining operations are near residences and populated areas, complaints, particularly those related to noise and vibration of homes (nuisance impacts), may still occur in relatively high numbers. Although regulations provide a limited ability to control nuisance impacts (for example blasting may typically occur only between sunrise and sunset), these nuisance-type concerns will continue to have periodic adverse effects on the quality of life of residents living in close proximity to the mine sites. The regulations were designed to minimize damage potential and only indirectly address nuisance; . . .⁴⁶

Blasting can also lead to a deterioration of air quality. The PEIS cites a study by the Department of Mining Engineering at West Virginia University that found that “detectable concentrations of respirable dust, total dust, nitrogen dioxide, nitric oxide, carbon monoxide and ammonia were found in ambient air at locations both in close proximity to the mining operation and at a distance greater than 1,000 feet from the blasting operations.”⁴⁷

5. Residents of Appalachia describe the impacts of mountaintop removal mining in their own words.

In addition to the reports and information recounted above, it is important to understand the impacts of mountaintop removal mining from the perspective of the residents of the communities most affected by this destructive practice. One resident of Boone County, West Virginia worries that:

[I]f a lot of changes aren't made with what goes out into the communities there are gonna be a lot of sick people. Lots and lots of sick people that are going to have illnesses that are death illnesses. Because my father died with silicosis, which is from rock dust like they blast the mountains up with, that covers acres and acres when they put off a blast in the mountains. And they don't care if it floods over a home or not. And also, the dust that's coming from the stoker plants that's being put into the air is what causes black lung – and my husband died of that. So I know what's going to face us. You're going to have a lot of illnesses in this state in about ten or fifteen years and they're going to wonder what caused it. And

⁴⁶ PEIS, p. IV.H.3.

⁴⁷ PEIS, p. III.V.1.

it's gonna be the coal mines that caused it. That's my way of lookin' at it.⁴⁸

A resident of Pike County, Kentucky describes the impact on her community:

[T]he beautiful mountains have been destroyed by mountaintop removal/contour mining. The streams are buried and have dried up. The air is full of dust and the well water is contaminated. The house is not as solid as it was just a few years ago. The nearby blasting is taking a toll. The mountains around the house now also pose a threat to our home in regards to flash floods and mud slides. I fear daily as to what may happen to my home. I don't want to see it destroyed but sometimes I feel I'm watching a slow death to it and to the environment that surrounds it.

A resident of Wise County, Virginia worries about the impacts on his community:

Derby is a place that was forged 100 years ago by underground coal mining, and now it's this mountaintop removal coal mining that's destroying us. In the last 10 or so years, I've watched as these hillsides have turned to just a pile of rocks. Nobody wants this here. And I think we deserve better than to be treated like we're just disposable people that are in the way for the coal.

The effects of mountaintop removal mining are not limited to the damage done to the environment. The people of Appalachia must live with the destruction and pollution every day.

III. Actions Requested

Under the terms of Executive Order 12898, the EPA must develop and implement an agency-wide environmental justice strategy to address the review of applications for Clean Water Act section 404 permits for mountaintop removal coal mining.⁴⁹ At a minimum, this strategy must: (1) identify the central Appalachian Mountain region as an environmental justice area of concern and create an environmental justice plan and strategy for the region; (2) promote enforcement of all health and environmental statutes, including the agency's responsibilities under the Clean Water Act and the National Environmental Policy Act; (3) ensure greater public participation in the process for issuing permits for mountaintop removal mines; (4) improve research and data collection

⁴⁸ Additional stories from the residents of Appalachia are attached as Exhibit 1.

⁴⁹ Executive Order 12898, section 1-103.

relating to the health of and environment of the citizens of Appalachia; (5) identify differential patterns of consumption of natural resources among the citizens of Appalachia.⁵⁰ We discuss the specific need for each element of this strategy, and ways in which EPA can go about developing and implementing each element of the strategy, below:

- 1. EPA must identify the central Appalachian Mountain region as an environmental justice area of concern, and must develop an environmental justice plan and strategy for this region.**

For all of the reasons provided above, EPA must identify the Appalachian Mountain region of southern West Virginia, southwest Virginia, eastern Kentucky, and eastern Tennessee as an environmental justice area of concern due to the vulnerability of these communities, the substantial harm already caused by mountaintop removal mining, and the serious ongoing risks of permanent and cumulative harm, pursuant to § 1-101 of E.O. 12898. EPA must then develop and implement an environmental justice plan and strategy for this region that will assess and prevent further disproportionate environmental and health effects from mountaintop removal mining, pursuant to § 1-103 of E.O. 12898.

- 2. EPA must enforce all health and environmental statutes in a way that eliminates the disproportionate harm suffered by Appalachian coalfield communities.**

In accordance with the June 11, 2009 “Implementing the Interagency Action Plan on Appalachian Surface Coal Mining” MOU between EPA, the U.S. Army Corps of Engineers, and the U.S. Department of the Interior, EPA recently completed its initial review of 79 Clean Water Act section 404 permit applications for disposal of “fill” material into waters of the United States, including many applications for valley fills caused by Appalachian mountaintop removal coal mining activities, and is poised to begin an “enhanced” review of all of the permits in conjunction with the Corps. As part of that review, EPA must promote enforcement of all health and environmental statutes in the Appalachian region, pursuant to § 1-103(a)(1) of E.O. 12898.

⁵⁰ Executive Order 12898, sections 1-101, 103.

First, the agency must incorporate environmental justice considerations into its current review of applications for Clean Water Act section 404 permits for mountaintop removal coal mining, pursuant to section 404 of the Clean Water Act, 33 U.S.C. § 1344, in particular the Corps' proposed issuance of permits under section 404(a)-(b), and EPA's duty to veto those permits that would violate the Act, pursuant to section 404(c) to eradicate disproportionate harms that would be caused in those communities where the new permits are proposed.

In addition, EPA must incorporate environmental justice considerations into its review of environmental impact assessments performed by all other agencies related to MTR mining pursuant to section 309 of the CAA, 42 U.S.C. § 7609, and E.O. 12898, including but not limited to assessments (or the lack thereof) related to actions taken by the Corps and OSM.

3. EPA must ensure greater public participation in the process for issuing permits for mountaintop removal mines.

We and other members of the public in Appalachia show great concern for the health of our families and our communities. These residents pay close attention to the events in our communities and speak up when they have questions or concerns, particularly regarding those activities that – directly or indirectly – place us and their families and neighbors at risk. Mountaintop removal mining and the blasting, toxic discharges, choking dust, and dangerous slurry impoundments that come with it are of particular concern. However, to the disproportionate detriment of residents in Appalachian coalfields, the process for permitting mountaintop removal mining, including applications for Clean Water Act section 404 permits, is often opaque, confusing, and burdensome for the public to follow. While agencies work closely with permit applicants, residents who will most directly feel the impacts of mountaintop removal mining are left with limited access to critical documents, and very little time to offer comments on proposed actions. In particular, it has been the longstanding policy and practice of the Huntington District of the Corps of Engineers to provide opportunity to comment only on a minimal public notice that typically describes the location, type, size, and other physical characteristics of the proposed project for which a § 404 permit is

sought.⁵¹ Such announcements typically run 4-5 pages, and lack adequate, if any, information concerning the direct and cumulative environmental effects of the permit, mitigation activities, permit conditions, and other such information that is central to the concerns of nearby communities as well as the legality of § 404 Clean Water Act permits. The Corps provides no public notice or opportunity to comment on the agency's rationale for issuing the proposed permit or factual information supporting the Corps' decision. Instead, the Corps simply sends the permit and the Corps' decision rationale to the applicant coal company, often several years after the public notice, then later includes the permit number in a quarterly list of issued permits.

The result of this approach is that mining companies can begin permanently destroying affected areas the moment a permit is issued, while the directly affected nearby residents are left scrambling to obtain copies of the final permit, mitigation plan, and decision rationale in order to review them for the first time. Often, by the time the District provides notice and adequate information about a final permit that it has issued, activities authorized by the permit have already caused significant irreparable damage.

Section 5-5 of E.O. 12898 specifically directs agencies to not only ensure public participation in agency actions, but also to make sure that the information shared with the public is accessible and comprehensible. The section of the Order that pertains to public participation and access to information states that "(c) Each Federal agency shall work to ensure that public documents, notices, and hearings relating to human health or the environment are concise, understandable, and readily accessible to the public."⁵² The requirement for adequate public participation opportunities is also supported both by NEPA and the Clean Water Act. In particular, "NEPA procedures must insure that environmental information is available to public officials and citizens before . . . actions are taken," and "[a]ccurate scientific analyses, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 C.F.R. § 1500.1(b). Agencies must "[m]ake diligent efforts to involve the public in preparing and implementing their NEPA procedures," and "[s]olicit appropriate information from the public." 40 C.F.R. §

⁵¹ Interestingly, when residents and community groups comment on these minimal notices, the Corps often criticizes those comments as being "very general in form" and containing "little specific content." *See, e.g.* Response to Comments, Fola Coal like Fork (Permit No. 200400967) Permit Evaluation and Decision Document.

⁵² Executive Order 12898, section 5-5.

1506.6(a), (d). In addition, the general policy of the Clean Water Act includes the precept that “public participation in the development . . . of any . . . program established by the Administrator . . . under this chapter shall be provided for, encouraged, and assisted by the Administrator . . .” 33 U.S.C. § 1251(e). Unfortunately, the agencies responsible for permitting mountaintop removal mining have not complied with the Executive Order in this regard.

4. EPA must improve research and data collection relating to the health of and environment of the citizens of Appalachia.

As described in detail above, numerous studies have found that the citizens of Appalachia who live in the communities most directly impacted by coal mining suffer the greatest impacts to their health. Despite the existence of these studies in prominent national journals, no government agency has taken action to further investigate or address this striking and troubling trend. Worse yet, the EPA continues to allow permits to be issued for the mountaintop removal mines that fill the air with dust and the streams with toxic pollutants.

Administrator Jackson, in her recent comments at the “Blacks in Government” annual conference, recognized that the challenge of creating healthy communities does not involve only access to health care, but also requires attention to the sources of air and water pollution that cause unnecessary illness. Administrator Jackson recognized that low income communities in America “get sick at 2 and 3 times the average rates because they live in neighborhoods where the air and water are polluted.” These are troubling statistics, and are seen all too clearly in the low-income communities in Appalachia that live in the shadow of sprawling mountaintop removal mines.

Here, then, is an opportunity for Administrator Jackson to follow her bold words with even bolder actions by directly addressing the EPA’s actions permitting the mountaintop removal mines that cause the air and water pollution that negatively impact the health of residents of Appalachia. As a starting point, the EPA should collect information on the health and environmental risks borne by low-income communities in Appalachia. Such action is specified in section 3-302 of E.O. 12898, which directs federal agencies to “collect, maintain, and analyze information assessing and comparing

environmental and human health risks borne by populations identified by race, national origin, or income. To the extent practical and appropriate, Federal agencies shall use this information to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.”⁵³

5. EPA must identify differential patterns of consumption of natural resources among the citizens of Appalachia.

We people of Appalachia enjoy an especially close relationship with the natural environment, and use the forests, lakes, and streams as a source for food and other resources. The Programmatic Environmental Impact Statement prepared for mountaintop removal mining discussed this relationship, stating:

Populations in the Appalachia region rely upon the natural environment for a range of activities including the harvesting of non-traditional forest products and subsistence gardening. Both activities are more difficult to document than traditional economic activity, however, a growing amount of research shows a significant reliance upon these activities. There is a cultural tradition in the region of reliance upon the harvesting of non-traditional forest products and subsistence gardens rather than welfare or other public assistance. This reliance upon the natural environment becomes part of a work ethic of sorts which centers around frequently isolated and tightly knit communities.⁵⁴

Unfortunately, many of those products of the natural environment consumed and utilized by residents of Appalachia now contain contaminants released through mountaintop removal mining.

Of particular concern is the consumption of fish that contains levels of selenium toxic to human health. As described above, many mountaintop removal mine valley fills discharge selenium into streams. This selenium then bio-accumulates through the food chain, including ultimately in the bodies of humans who consume contaminated fish.

EO 12898 contemplates just such a situation, and directs federal agencies, when developing their policies and rules, to consider guidance “reflecting the latest scientific information available concerning methods for evaluating the human health risks

⁵³ Executive Order 12898, section 3-302.

⁵⁴ PEIS, p. III.T.6.

associated with the consumption of pollutant-bearing fish or wildlife.”⁵⁵ The EPA must develop and consider guidance regarding the consumption of fish contaminated with selenium from mountaintop removal operations, as well as other avenues for exposure to contaminants resulting from the consumption of natural resources from areas surrounding mountaintop removal mines.

IV. Conclusion

Executive Order 12898 recognizes the disproportionately high and adverse human health and environmental effects suffered by members of low-income populations in the United States, and directs each Federal agency to make achieving environmental justice part of its mission. The people of Appalachia – and in particular the residents of low-income Appalachian communities where mountaintop removal mining is conducted – fall squarely within the protections of this Executive Order. And yet, despite the obvious applicability of the Order to the residents of Appalachia, EPA has consistently failed to follow the terms of E.O. 12898 when reviewing applications for permits for mountaintop removal mines. As a result, EPA allows one of the most destructive and polluting practices employed anywhere in the United States to proceed in the center of some of the most vulnerable communities in this country. We urge EPA to take seriously the directives of E.O. 12898 and to immediately begin taking the actions described above and otherwise incorporating environmental justice considerations into its review of applications for Clean Water Act section 404 permits for mountaintop removal coal mining and its review of environmental impact assessments performed by all other agencies related to mountaintop removal mining.

V. Petitioners

The petitioning organizations all represent local residents of coalfield communities in West Virginia, Kentucky, Virginia, and Tennessee who deserve protection under Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”:

Coal River Mountain Watch is a grassroots organization begun in 1998 to organize the residents of southern West Virginia to fight for social, economic, and environmental

⁵⁵ Executive Order 12898, section 4-402.

justice. The mission of Coal River Mountain Watch is to stop the destruction of our communities and environment by mountaintop removal mining, to improve the quality of life in our area and to help rebuild sustainable communities.

Kentuckians For The Commonwealth is a statewide citizens organization working for a new balance of power and a just society in Kentucky. KFTC's "Canary Project" works for a better future beyond coal, including an end to mountaintop removal mining.

The mission of the **Ohio Valley Environmental Coalition** is to organize and maintain a diverse grassroots organization dedicated to the improvement and preservation of the environment through education, grassroots organizing and coalition building, leadership development and media outreach. One of the Ohio Valley Environmental Coalition's current major work focuses is ending mountaintop removal mining.

Southern Appalachian Mountain Stewards is an organization of concerned community members and their allies in southwest Virginia who are working to stop the destruction of our communities by surface coal mining, to improve the quality of life in our area, and to help rebuild sustainable communities.

Statewide Organizing for Community eMpowerment (formerly Save Our Cumberland Mountains) is a non-profit Tennessee member-run grassroots organization working state-wide for social, economic, and environmental justice for all in areas including clear cutting, strip mining, and mountaintop removal mining.

Sierra Club's Environmental Justice and Community Partnerships Program was established to support representative low-income and people of color community grassroots organizations facing environmental injustices on their environmental protection priorities. The EJ Program's commitments are to the community grassroots organization's chosen environmental protection goals. The EJ Program seeks to support communities and provide tools for their self-empowerment, and strives to keep the community organization's environmental protection goals as the focus of attention.

The Appalachian Center for the Economy and the Environment is a regional law and policy organization that works together with individual citizens and grassroots citizens' groups to clarify, analyze and act on the environmental and economic issues that affect our communities. The Center is working to stop mountaintop removal coal mining and to protect communities from the adverse health effects caused by water and air pollution generated by resource extraction.

Note: The complete Appendices to this Petition can be found at:

<http://www.sierraclub.org/ej/appalachia/Appendix-to-MTR-Environmental-Justice-Petition.pdf>